

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the outstanding rejections is requested.

Applicants have cancelled the non-elected claims, and have amended the dependent claims that referred to Claim 1, now cancelled. This amendment should be entered as it places this case in better form for Appeal.

The rejections are premised on the idea that Caldwell teaches the use of a hydrophobic substrate as a platform for the immobilization of hydrophilic macromolecules. It does not. Caldwell's substrate presents a hydrophilic surface.

The paragraph bridging pages 3 and 4 of the Official action indicates that it would have been obvious to use a hydrophobic substrate as taught by Caldwell in the method of Ford "in order to provide a surface with a high degree of reactivity and little or no background non-specific reactivity." However, Caldwell specifically teaches that it is his hydrophilicly-coated hydrophobic substrates that provide this benefit:

[T]he surfaces ***provided by the coatings of the invention*** have a ***higher specific reactivity*** per unit area of surface with an even distribution of reactivity. In addition, ***there is little or no background nonspecific reactivity resulting from adsorption to unshielded surfaces.***

See col. 4, lines 22-26 of the reference (emphasis added). These coatings are made of a modified polymer surfactant, which is coated onto the surface of an underlying hydrophobic substrate:

The modified polymeric surfactant is adsorbed upon a hydrophobic polymer substrate to provide a surface with specific reactivity.

See col. 7, lines 18-20. The result is a substrate with a hydrophilic surface:

The surface resulting from the modified polymer adsorbed on the hydrophobic substrate is hydrophilic and quite compatible with proteins that can be immobilized on the surface through the reactive sites.

Col. 4, lines 4-7 (emphasis added). Caldwell therefore teaches that before any use is made of a hydrophobic substrate, for example by attaching proteins thereto, the hydrophobic surface must first be completely changed such that a hydrophilic surface is presented. Thus, even if one were motivated to use Caldwell's substrate with the nucleic acids of Ford (or with the nucleic acids, etc. of the applications cited in the double patenting rejections) the substrate used would be the *modified* substrate of Caldwell, i.e., the *hydrophilic* surface-modified substrate of Caldwell.

Because all of the rejections are premised on the idea that Caldwell teaches the use of a hydrophobic substrate as a platform for the immobilization of hydrophilic macromolecules, which it does not, Applicants request the reconsideration and withdrawal of the outstanding rejections and the passage of this case to Issue.

Respectfully submitted,

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